Remarks

Claims 1-20 have been rejected under 35 U.S.C. §103(a) as being un-patentable over Tappan (US 6,473,421). Originally filed claims 1-20 are cancelled by this amendment and new claims 21-46 more clearly define the invention. Basis for claims 21-46 can be found in claims 1-20 as originally filed and in the specification as a whole. Errors in the specification have been corrected, and the descriptive portion at pages 5 - 8 has been changed to reflect the changed claims.

Tappan teaches data-packet-forwarding through a routing domain divided into Open Shortest Path First (OSPF) areas from a source router S to a destination D, both outside the routing domain (col. 5 lines 48-53). The teaching is directed towards reducing storage requirements of forwarding-table entries maintained by routers, which table entries are required to forward the data packet.

The Office Action at paragraph 4 states that Tappan teaches a host operably connected to a first network router (I-ASBR). However, reference to Tappan Fig. 6 and col. 5 lines 65-67 shows Tappan teaches a source router S (col. 5 line 47) connected to a Ingress Autonomous System Border Router (I-ASBR), which is not the same as a host connected to a next-level domain as claimed in the amended claims. Moreover, Applicant is of the view that the Office Action mistakenly equates the "network entity" of the present invention with a network router of Tappan, whereas the present invention defines network entities as domains (page 12 lines 16-17). That is, the Office Action has unallowably equated the "host connected to a domain" of the present invention with a "source router connected to a border router" of Tappan. Furthermore, the Office Action appears to confuse the address space, i.e. a set of addresses allocated to a domain, of the present invention with an address prefix P of a destination address of a data packet to be forwarded of Tappan. Similarly, the Office Action unallowably equates the second network router (E-ASBR) of Tappan with a second network entity (i.e. second domain) of the present invention. Moreover there is no teaching in Tappan of the source router S using the

address prefix P of the forwarded data packet to ascertain an available return route for a reply to the forwarded data packet, or the slightest suggestion how the source router S might make such an ascertainment, or any motivation so to do, as claimed in the present invention. Claim 28 requires a host apparatus, having a processing unit, to connect to a next-level domain connected one of directly and indirectly to more than one of a plurality of top-level domains of a communications system, each top-level domain having a respective top-level address space, the next-level domain having respective next-level address spaces which are subsets of respective top-level address spaces of the more than one of the plurality of top-level domains; the host apparatus having host addresses which are members of the respective next-level address spaces, and the processing unit being arranged to use information received by the next-level domain from the top-level domains when a route is available from said top-level domains to which the next-level domain is connected, to select from the host addresses, for transmission from the host apparatus, an address corresponding to a route which is available. Tappan teaches none of these substantial features. Similarly Tappan teaches none of the substantial features of the corresponding systems claim 21 or method claim 33. Moreover, Tappan teaches none of the substantial features of systems claim 27 of a communications system comprising: a host operably connected to a first network entity having a plurality of address spaces associated therewith, each such address space corresponding to one of a plurality of second network entities to which the first network entity is connected, the first network entity being arranged to receive information from at least one of the plurality of second network entities from which a return route is available, wherein the host is arranged to process said information from at least one of the plurality of second network entities to select from the plurality of address spaces an address corresponding to such an available return route.

Applicant submits that the present invention as claimed differs from the teaching of Tappan much more than "in a matter of degree". While acknowledging that routers exchange routes, Applicant remarks that in a network the number of hosts typically

vastly outnumbers the number of routers and that there are many reasons (security, administrative and operational complexity etc.) why it is very undesirable for hosts to run routing protocols and perform a routing function. The claimed invention has the particular advantage of a host with more than one address using existing host procedures to determine which address to use, without the need to participate in a routing routine.

In the light of the amendments made to the claims and the above remarks, it is submitted that this application is now in condition for allowance and early allowance is earnestly solicited.

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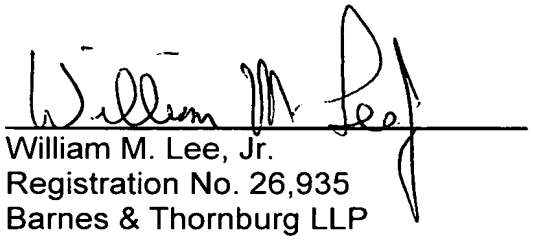
Respectfully submitted,



William M. Lee, Jr.
Registration No. 26,935
Barnes & Thornburg LLP
P.O. Box 2786
Chicago, Illinois 60690-2786
(312) 214-4800
(312) 759-5646 (fax)